

Forecast Summary:

A Water Year 2019 Water Supply Index (WSI) forecast for conditions as of January 1, 2019 is posted at <http://cdec.water.ca.gov/reportapp/javareports?name=WSI>. The WSI forecast is based on the precipitation and runoff (full natural flow) through December 2018 and can be summarized as follows:

Sacramento River Unimpaired Runoff Water Year Forecast (50 percent exceedance)	14.0 MAF (78 percent of average)
Sacramento Valley Index (SVI) (50 percent exceedance)	6.6 (Below Normal)
San Joaquin Valley Index (SJI) (75 percent exceedance)	2.2 (Dry)

Runoff:

Unimpaired flows in Percent of Average for Water Year 2019

Hydrologic Region	Oct Runoff	Nov Runoff	Dec Runoff	Oct-Dec Runoff
Sacramento River Region	78	56	45	53
San Joaquin River Region	65	56	43	50
Tulare Lake Region	65	55	51	55

Through the first 7-8 days of January, rivers in the Sierra Nevada are flowing well below average to start the month.

January full natural flow rates updated through January 7-8, 2019

River Basin	Percent of Historic Average
Trinity	26
Shasta Inflow	43
Sacramento at Bend Bridge	45
Feather	31
Yuba	25
American	27
Cosumnes	16
Mokelumne	26
Stanislaus	36
Tuolumne	31
Merced	24
San Joaquin	35
Kings	42
Kaweah	27
Tule	26
Kern	43

Precipitation:

Precipitation for Water Year 2019 accumulated at the following rates of average

Region	WY accumulated precipitation (%) through December 31, 2018
Sacramento River Valley	75
San Joaquin River Valley	99
Tulare Lake Basin	105
Statewide	84
Regional Precipitation Indices	Average to date

	as of January 9, 2019
Northern Sierra 8-Station Index	76 (16.2 inches)
San Joaquin 5-Station Index	79 (12.1 inches)
Tulare Basin 6-Station Index	94 (9.9 inches)

Monthly Precipitation to date in Percent of Average for Water Year 2019 for Regional Precipitation Indices

Regional Precipitation Indices	Oct	Nov	Dec	Jan
Northern Sierra 8-Station Index	34	104	54	38
San Joaquin 5-Station Index	36	152	34	29
Tulare Basin 6-Station Index	125	163	40	31

Snowpack:

The snowpack as of the morning of January 9, 2019 stands at the following (based on snow sensors)

Region	Snow Water Equivalent (inches)	% of Average (Apr 1)	% of Average (Jan 9)
Northern	10.8	38	87
Central	11.4	38	88
Southern	8.6	34	87
Statewide	10.4	37	88

Weather and Climate Outlooks:

The 6-day weather forecast predicts up to 2.0, 1.0, and 0.5 inches over the Northern, Central, and Southern Sierras, respectively. The bulk of the precipitation in the Sierras is expected today. The 6-day weather forecast also predicts up to 2.5 inches on North and Central Coasts with localized precipitation amounts up to 3.5 inches near Big Sur. Freezing levels will remain near 6,000-8,000 feet over the Northern Sierras and 7,000-9,000 feet over the Central and Southern Sierras over the next six days.

The NWS Climate Prediction Center (CPC) one-month outlook for January, posted December 31, indicates increased chances of above normal temperatures for the entire State. The same outlook suggests increased chances of above normal precipitation for the southern third of the State.

The CPC three-month (January-February-March) outlook, posted December 20, indicates increased chances of above normal temperatures for the entire State. The same outlook suggests increased chances of below normal precipitation for the northern third of State and equal chances of above or below normal precipitation everywhere else excluding the southern border with Arizona where increased chances of above normal precipitation are expected.

According to the latest El Niño/Southern Oscillation (ENSO) discussion issued by the Climate Prediction Center on January 7, 2019, ENSO-neutral conditions are present. Equatorial sea surface temperatures are above average across most of the Pacific Ocean. The patterns of convection and winds are mostly near average over the tropical Pacific. El Niño is expected to form and continue through the Northern Hemisphere winter 2018-2019 (~90% chance) and through spring (~60% chance).

Next Update:

The next WSI forecast for conditions as of February 1, 2019 will be available on Friday, February 8. The first Bulletin 120 of the water year 2019 will also be issued at that time. If you have any questions regarding this forecast, please contact a member of the Snow Surveys staff.